



IPW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
In re Application of
Sten R. Gerfast
Serial No. 10/706,416
Filed Nov. 13 2003
For ABUTTING CLINCH JOINING METHOD

Group art unit 3726

Examiner Jermie Cozart

Commissioner of Patents
P.O. BOX 1450
Alexandria VA 22313-1450

SEPT 16 2005

DETAILED ACTION.

"The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter.

Correction of the following is required: The strips are of other material than metal"

The strips are of metal and malleable materials, but are not excluding metal as the examiner suggests.

The specification states: "**This invention relates to the joining of strips or shapes of metal and other malleable materials**" (Page 1, line 3) Please reverse this objection.

{Malleable = "susceptible of being fashioned into a different form or shape"

Claim objections.

Claim 4, 6, and 10 are objected to because of the following informalities: In claim 4 line 1 and in claim 10 line 2 "then" is objected to because it is the incorrect word being used.

Please change the word "then" to "than" in claim 4 line 1 and claim 10 line 2.

In claim 6 line 4 "are" is objected to because it is grammatically incorrect and therefore should be deleted, "having" is objected to because it is the incorrect word being used and should be changed to "have".

Please delete in claim 6 line 4 the word "are" and change in the same claim same line the word "having" to "have".

Claim rejections, 112.

Claims 1-12 are rejected under 35 U.S.C 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 2, and also in claim 7 line 2, it is unclear as to what is meant by the term

"both abutments". "Abutment" is defined in dictionaries as: "the place projecting parts meet; junction"

"Abut" is defined as: "(to) join end to end". "Abutting" is defined as: "that abuts; adjoining; adjacent"

"Butt'joint" is defined as a joint formed by two pieces of wood or metal united end to end without overlapping"

The term “Both abutments”... is the place projecting parts meet.....of two abutting parts.... end to end.

and is very concise claim language. It does not at all describe overlapping.

Reversal of this objection is respectfully requested.

Copies of dictionary pages are included.

Both the words “butt-joining” and “abutment” that are used in many of the claims are very concise and descriptive words that succinctly and distinctly describes the applicants invention.

It is described on page 3 line 18 through 22 as abutting (not overlapping)

and also in Fig.1. Those lines and the Fig.1 also describes that

“knock-out slugs” are produced when the punch totally pierces the material,

not when the punch is only “shearing” part of the material producing “tongues” described in Dubus col. 2

line 77 –80 and “tongues” described in Smith col. 1 lines 58-67. To further clarity the difference between a

“slug” and a “tongue”..... a common patent description describing a “knock-out-slug” is what is produced

when a paper punch punches through a paper. Gerfast Fig.1 and description on page 3 lines 19-22

is further clarifying that the Gerfast invention is defined to use “slugs” not strips called “tongues”.

Examiners statement: “Claim 1 recites the limitation “it” in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.” The word “it” refers to the “slug”, but if the examiner prefers: “clinch said slug into said slots “

Please change claim 1 accordingly.

“Claim 6 recites the limitation “said keystone shaped slugs” and “said rounded corners “. There is insufficient antecedent” Please delete “slugs” and insert “slots” and further delete “are also having said rounded corners” and insert “have two rounded edges produced by both a punch and a die”

“Claim 7 has insufficient antecedent for the word “it”. Please delete “it” and insert “said slug”.

“Claim 12 has insufficient antecedent for the words “said clinching heights”. Please delete “said” and insert “ produced by said clinch method” before the word “is”.

butt/ joint/ *Building Trades.* a joint formed by the pieces of wood or metal united end to end without overlapping.

a-but (ə but'), v., a-but-ted, a-but-ting. —*v.t.* 1. to be adjacent; touch or join at the edge or border (often fol. by *on, upon, or against*): *This piece of land abuts on a street.* —*v.i.* 2. to be adjacent to; border on; end at. 3. to support by an abutment. [*late ME < NF abut(er)* (to) join end to end (a- < < + but end) and *abut(er)* (to) touch at one end (a- < < + but end)]

a-but-tion (ə but'ʃən), n. a shrub of the genus *Abutilon*, comprising the flowering maples. {< NL < *Ar abutilon*}

a-but-ment (ə but'ment), n. 1. *Archit., Civ. Eng.* a. a masonry mass supporting and receiving the thrust of part of an arch or vault. b. a mass, as of masonry, receiving the arch, beam, truss, etc., at each end of a bridge. c. a mass or structure for resisting the pressure of water on a bridge, pier, or the like. d. each of the parts of a canyon or the like receiving the thrust of an arch dam. e. a structure for absorbing tensions from reinforcing strands for concrete being prestressed. 2. the place where projecting parts meet; junction. 3. *Dentistry.* a tooth or tooth root that supports or stabilizes a bridge, a denture, or other prosthetic appliance. {*ABUT* + *-MENT*}

a-but-tal (ə but'təl), n. 1. *abuttals*, those parts of one piece of land that abut on adjacent lands; boundaries. 2. act or state of abutting. {*ABUT* + *-TAL*}

a-but-tals (ə but'təz), n. pl. *Low.* the boundary lines of a piece of land in relation to adjacent lands. Also, *abuttals*. {*see ABUTTAL*}

a-but-ter (ə but'tər), n. a person who owns adjacent land. {*ABUT* + *-ER*1}

a-but-ting (ə but'tiŋ), *adj.* that abuts; adjoining; adjacent. {*ABUT* + *-ING*1}

—*Syn.* joining, touching, bordering.



A. Abutment

Please add Claim 13 "Butt-joining method as defined in claim 7 wherein said metal strips are mitered at 45 degrees and abutting at said mitering, four said strips forming a frame."

Please add claim 14 "Butt-joining method as defined in claim 13 wherein during said mitering a remnant of material is purposely left in the mitered corner."

Both claim 13 and 14 have antecedent both in Fig.3 and Fig.4 and in the description for both figures.

102 Claim rejections.

Claim 1, 5, 7, 11 and 12 are rejected under U.S.C. 35 102 (b) as being anticipated by Smith et al. (2,901,816)

Smith's fabrication method is distinctly overlapping not Butt-joining as recited by Gerfast.

Two very different and distinct processes and very unlikely to be at all anticipated by a person skilled in the art.

Smith is not disclosing "knock-out-slug" (Gerfast claim 7 line 3), his disclosure is for "tongues " that are very different from "knock-out-slugs". Both the words "butt-joining " and "abutment" that are used in many of Gerfast's claims are very concise and descriptive words that distinctly describes the applicants invention. See above. Smith is neither disclosing "butt-joining" or "abutment". As the examiner correctly points out he is using "overlapping portions of strips 12, 13"

His Fig. 8 is not "flush or slightly below the surface of the strip"; his Fig. 2, 3, 4, 5 and 7 shows that his "fastening method" (Col. 2 lines10-14) is about 6 times the material thickness below the surface of the strip.

With all these stated differences I respectfully request that the rejection of Claim 1, 5, 7, 11 and 12 as being anticipated be reversed.

103 Claim rejection.

Claims 1-11 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Dubus (1,141,046)

Examiner states: Regarding Claims 1-3, 5 and 6 Dubus discloses abutting two strips (1,2).....

To the contrary Dubus does not disclose "abutting" his invention clearly shows in his Fig. 1,2,3,4,5 &6 two strips overlapping and in Col 1 line 20-22 describes " joining the ends of bale ties, wherein the joint is effected by tongues punched from the overlapping ends of the ties"

Dubus's fabrication method is distinctly overlapping not Butt-joining as recited by Gerfast.

Two very different and distinct processes and very unlikely to be at all obvious by a person skilled in the art.

Dubus is not disclosing “knock-out-slug” (Gerfast claim 7 line 3), his disclosure is for “tongues “ that are very different from “knock-out-slugs”. Both the words “butt-joining “ and “abutment” that are used in many of Gerfast’s claims are very concise and descriptive words that distinctly describes the applicants invention. See dictionary definitions above.

Dubus is neither disclosing “butt-joining” or “abutment”. As the examiner correctly points out he is using “overlapping portions of strips 12, 13 ”.

Again: Dubus’s fabrication method is distinctly overlapping not Butt-joining as recited by Gerfast.

Two very different and distinct processes and very unlikely to be at all obvious by a person skilled in the art.

His “keystone shaped” slots are not

“keystone shaped”(another term for this form is “dove-tailed shaped”) Dubus describes his “tongues”

as being: “triangular tongues”, “semi-circular tongues” and “rectangular tongues” Smith and Dubus “tounge”

can not be used in a pair of abutting butt-joint’s recited by Gerfast.

Regarding claims 7-9 and 11, Examiner uses basically the same words and the same argument as above.

This requires the same reply:

To the contrary Dubus does not disclose “Abbutting”.

Dubus is not disclosing “knock-out-slug” (Gerfast claim 7 line 3), his disclosure is for “tongues “ that are very different from “knock-out-slugs”. Both the words “butt-joining “ and “abutment” that are used in many of Gerfast’s claims are very concise and descriptive words that distinctly describes the applicants invention. See dictionary definitions above.

Dubus is neither disclosing “butt-joining” or “abutment”. As the examiner correctly points out he is using “overlapping portions of strips 12, 13 ”. His “keystone shaped” slots are not

“keystone shaped”, see detail of “keystone shape” in Gerfast Fig.1 reference number 35;

(another term for this form is “dove-tailed shaped”) Gerfast statement further explains “keystone shapes”

“to further enhance the holding force during a pull-apart test of the joined strips” (Page 2 lines 17-19)

Dubus describes his “tongues”

as being: “triangular tongues”, “semi-circular tongues” and “rectangular tongues”

These “tounge” can not be used in a pair of abutting butt-joint’s as recited by Gerfast.

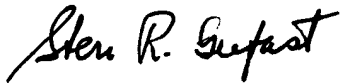
Examiner statement: "The slots in both the abutments have two rounded edges (Fig.5) produced by both a punch (lines 64-65) inherently having a cooperating die.", is referring to Dubus's rounded edges in his overlapping strips in their top view, while Gerfast Fig.1 clearly means rounded edges 40 and 45 in side view.

In summary both Smith and Dubus disclosures are not at all useful to produce a Butt-joint as recited by Gerfast

Both Smith and Dubus disclosures are "overlapping" a very different and distinct processes from the Butt-joining, clinch-joining process as recited by Gerfast, and the two would be very unlikely to be at all either anticipated or obvious by a person skilled in the art.

Reconsideration and the withdrawal of both the 112 rejection (claim 1), the 102 rejection (claims 1,5,7,11,12) and 103 rejection (claims 1,2,3,5,6,7,8,9,11) are courteously solicited.

Respectfully submitted



Sten R. Gerfast

1802 Valley Curve Mendota Heights MN 55118

September 16 2005

Phone and FAX 651 454 1923